

Topic	Learning	Completed (v)
<p>Topic 1: Applied anatomy and physiology</p> <p>Muscular Skeletal System</p>	<p>1. Draw and label the anterior and posterior of a skeleton (minimum 40 bones in full Latin)</p>	
	<p>2. Define the following types of movement using a minimum of two sporting examples</p> <ul style="list-style-type: none"> • Abduction • Adduction • Flexion • Extension • Circumduction • Horizontal flexion • Horizontal extension • Depression • Elevation • Plantar-flexion • Dorsi-flexion • Eversion • Inversion • Pronation • Supination • Lateral flexion • Hyperextension • Rotation 	
	<p>3. Research the three different types of lever (Class 1, 2 and 3). Use sporting examples to support your explanation of each</p>	
<p>Topic 2: Exercise physiology and applied movement analysis</p>	<p>1. Research Karvonen's principle for calculating heart rate reserves and apply the formula to your own heart rate training zones</p>	
	<p>2. Research and fully explain how the following are used to monitor fitness and performance</p> <ul style="list-style-type: none"> • Pedometer • Force plates • Heart rate monitors 	

Principles and Methods of Training	<ul style="list-style-type: none"> • GPSports • Power meters • Fitness machines (i.e. CYBEX) • Laser sensor equipment and positional software • Isokinetic strength training machines • Video analysis software (i.e. Quintic and Dartfish) • Wind tunnels • Technology and drag 	
	<p>3. Discuss the advantages and disadvantages of altitude training, considering some of the following terms</p> <ul style="list-style-type: none"> • Hypoxic conditions • Red blood cell count • Short-term and long-term adaptations • Hypobaric chambers • Live-high train-high, live-low train-high etc 	
	<p>4. Compare and contrast the concept of periodization and various principles of training. Apply this to your own sport and give examples of how you could implement these into a training programme</p> <ul style="list-style-type: none"> • Microcycle • Mesocycle • Macrocycle • Frequency and intensity • Tapering and peaking 	